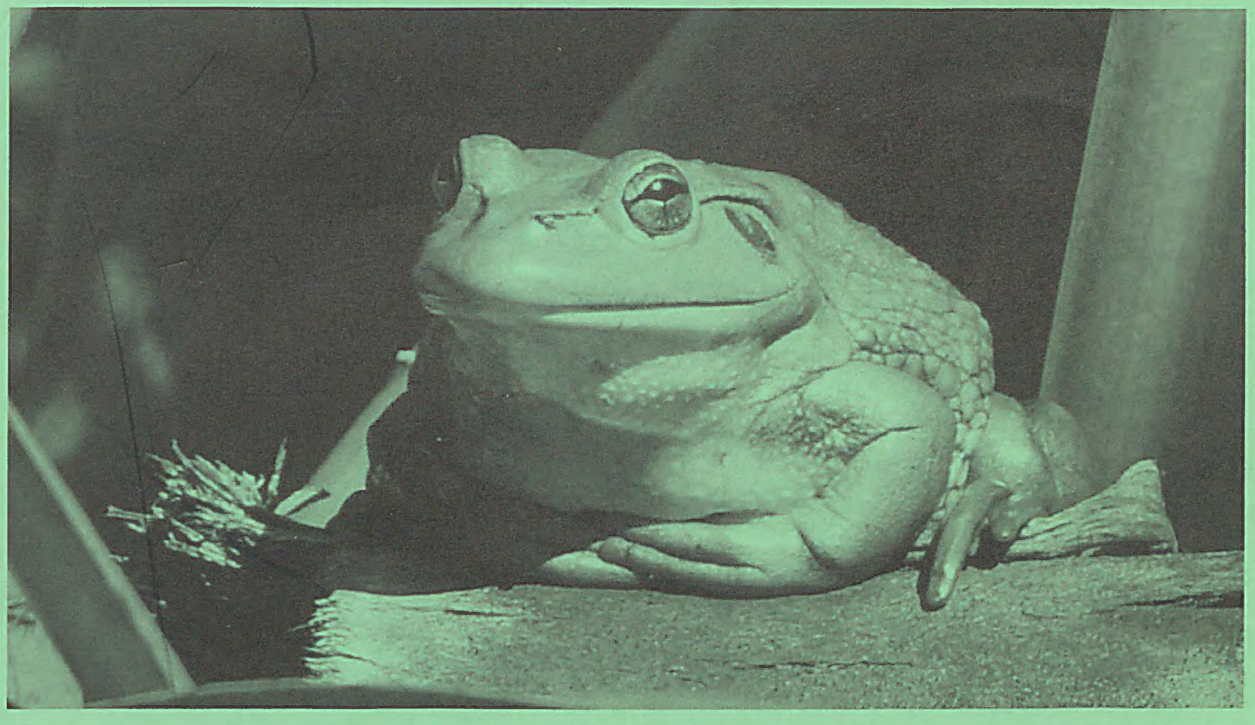
GEELONG NATURALIST

MONTHLY MAGAZINE OF THE GEELONG FIELD NATURALISTS CLUB INC



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Vol. 55 No. 8 **December 2019**

ISSN 0726–7363

General Meeting—Tuesday 3 December at 8.00 p.m.
Members' night and Christmas supper

Speaker: Dr Heather McGinness, Senior Research Scientist, CSIRO Land and Water
Talk: Heather will be talking about waterbird breeding and movements, creating information and knowledge to better fill gaps in understanding of waterbird ecology and to assist environmental water managers.
Afterwards we will share supper together so please bring a plate of something sweet or savory to share.

General Meeting—Tuesday 4 February at 8.00 p.m.
Speaker: Chad Browning, Biodiversity Officer, Regional Network Energy Project Team, Barwon SW, DELWP.
Talk: The energy transition: Environmental implications and their management.

In the last few months we have welcomed to the club…

Maryann Thorp, Geelong West; Kerry Haddon, Hamlyn Heights

We wish them a long and happy association.

Obtain your username and password to add records to the GFNC website www.gfnc.org.au

Login is required if you wish to add observations. Just contacted **info@gfnc.org.au** for a username and password.

Submissions to *Geelong Naturalist*

The closing date for the next magazine will be **Monday January 27 2020.**

Early lodgement of articles (small & large—maximum 2 pages) would be a great help—late copy may not be accepted.
Photographs—appropriately labelled, digital as .jpg —to the editor.
The editor for the **February edition** of the *Geelong Naturalist* is Alison Watson alisonw577@gmail.com

GFNC is on Facebook

www.facebook.com/groups/GeelongFNCGroup

A group for club members only, to share observations and other information

www.facebook.com/geelongfnc

The club public Page where forthcoming events and other items are shared

Geelong Naturalist on Trove

Recent copies of our magazine are now being uploaded digitally to the National and State Libraries and are downloadable from Trove.
You can find them quickly via this short link **bit.ly/Geelong_Naturalist**

The photo on the front cover is a Growling Grass Frog taken by Lothar Hohaus on 24/10/19 at Freshwater Creek (see p. 4 Bird excursion report and p. 6 Fauna Report).

On the back cover is a photo featuring two Royal Spoonbills taken by Chrissy Freestone at Blue Waters Lake on 16/11/19.

Mailing roster
December: Bernie Lingham
January: No Geelong Naturalist
February: Diana Primrose

Geelong Field Naturalists Club Invertebrate Project and use of iNaturalist

Rod Lowther

At the GFNC Annual General Meeting and members night in 2018, Marilyn Hewish gave a presentation on how Bowerbird, a national online database for recording nature observations, was established by Museum Victoria with some assistance from the Atlas of Living Australian (ALA). Cathy Powers followed up Marilyn's talk by describing how to register on the system, record observations and upload an associated photo.

In the May *Geelong Naturalist* Vol 54. no.1, Cathy wrote an article giving further details on how to use Bowerbird as the club had decided to use it as its platform for recording invertebrate observations. Bowerbird allowed us to tap into the knowledge and expertise of its many users to assist in identifying the species that members had photographed.

The GFNC Invertebrate Project had 12 members who submitted a total 136 observations in the following 12 months. However, early in 2019, we were advised that the system would be closing as on-going financial and technical support for the system had not been forthcoming. The search was on for an alternative platform with two main candidates emerging. The first was to enter data directly into ALA which is the national biodiversity data system. The advantage of this route is that it is club policy that all nature observations ought to be available to the wider community and our other systems (eBird and club web site) had mechanisms to transfer data into the ALA. ALA is funded by the federal government with the computer systems hosted and maintained by the CSIRO. The other candidate was iNaturalist, a US based system developed by the California Academy of Sciences and National Geographic.

While we were evaluating the two systems, the decision on how to proceed become clearer. The iNaturalist was certainly the easier system to use with PC, tablet and phone versions available. However, there were concerns about data availability to the Australian scientific community and about how the migration of information into ALA would be done and by whom, as we wanted the information to also reside on an Australian system. In May 2019, ALA signed an agreement with iNaturalist taking on the operation and support of the system within Australia. ALA had recognised the merits of easy user functionality and how this would encourage more people to be involved in nature data collection. With ALA being iNaturalist's local custodian, they recommend to their registered users that they use iNaturalist. In addition to being responsible for iNaturalist, ALA could focus its resources and effort into its role as the prime aggregator and repository of biodiversity and species data within Australia.

Many other groups who were using Bowerbird have also had their projects with associated data migrated to iNaturalist.

The club's iNaturalist invertebrate project now has 325 observations.

Members photos can be seen by putting the following web address into your browser: https://www.inaturalist.org/projects/gfnc-invertebrates-collection?tab=observations

As well as invertebrates, the GFNC group has established a plant project on iNaturalist where plant observations can be recorded. The project is an 'open' project meaning it allows any registered user of iNaturalist to record a plant observation within our geographic area of interest. Currently the collection holds three and a half thousand photos detailing 724 species from 347 observers. The project can be viewed at https://www.inaturalist.org/projects/gfnc-plant-group-collection

The adoption of iNaturalist by ALA has certainly changed the landscape for recording nature observations in Australia. Some of the small systems like NatureShare have folded and migrated to iNaturalist. Speciality platforms like the Aussie Backyard Bird Count and FrogID applications still continue, with embedded data collection to ALA as part of their design software architecture.

The club recommends that members sign up and learn more about the iNaturalist system at https://inaturalist.ala.org.au/. To find the club's projects click on 'Community' in the menu dropdown, select 'Projects' and enter 'GFNC' in the search engine.

The club now has three opportunities for recording a nature observation. These are: eBird, which is ideal for surveys and excursions where many bird species are observed within a short timeframe or over a small area; the club's website, which is mainly for those users/ observers who are only reporting incidental observations where the species identification can be readily made; and iNaturalist, for recording invertebrates and plants including where identification may be difficult. Both eBird and iNaturalist have the functionality to include photographic evidence to support the observation. Importantly, all three processes ensure the information about our local biodiversity is captured for future analysis; enabling us to quantify the long-term species richness, gain a better understanding of impact of climate change, urbanisation and the many other threats to our natural environment

Castlemaine SEANA Camp

Alison Watson

Over 100 people from many Field Naturalist Clubs around Victoria met in early October in Castlemaine for the South East Australian Naturalists' Association camp. There were many interesting excursions to choose from that included local history, geology, plants and birds. Out on the Mooloot Plain we visited Long Swamp, an ephemeral wetland purchased by Trust for Nature. We discovered many interesting plants and enjoyed the ancient River Red Gums. Looking at the sedges we were reminded of the saying 'sedges have edges, rushes are round and grasses have knees that bend to the ground'. It was a great spot for raptors with 6 different species seen. The well-researched geology tour looked at the numerous volcanoes in the area as we drove through the rolling hills. We were told it is one of the most prolific areas for volcanoes. The healthy bushland areas we visited had diverse flora including beautiful pink flowering shrubs of Rosy Baeckea, various grevilleas, orchids and wattles. Our birding highlights were nesting White-breasted Woodswallows, Yellow-tufted and Fuscous Honeyeaters, Brown Tree-creepers, and Orioles.

It was a thoroughly enjoyable weekend exploring this fascinating region. The catered dinners were exceptionally good and we all went home a few kilograms heavier. Thank you Castlemaine Field Nats. The next SEANA camp will be based around Hamilton in March 2020.

Rosy Baeckea (*Euryomyrtus ramosissima*) 6/10/19

Admiring old river red 5/10/19

Photos: Alison Watson

Geelong Field Naturalists Club: Recreational Duck Shooting Statement

Rod Lowther for the Conservation Subcommittee

Early this year, the GFNC Conservation subcommittee conducted a review of the club's policy with respect to duck shooting. This agenda item was in response to a few members voicing that the current position was not known within the club.

Barry Lingham prepared an article 'A brief history of the GFNC views regarding duck hunting' for the April 2019 Geelong Naturalist. The article documented the motion which had previously only been recorded in the minutes of the club's February 2010 General Meeting and concluded with a request for comment from members around the current policy.

The feedback was unanimous in support of the club's position seeking a ban on recreational duck hunting. The Conservation subcommittee formally endorsed the principle position of the club on this issue but sought that the policy context be restated as the original motion was against a backdrop of the impact of duck hunting during the Millennium drought.

A briefer, more embracing policy statement around the issue was drafted and subsequently endorsed by the Conservation subcommittee. The statement is shown below.

A letter was sent to the Premier and Senior Cabinet Minister containing the statement and calling for the Victorian Government Labour members to support a private members bill banning duck shooting. The private members bill looked to make minor amendments to the Victorian Wildlife Act 1975 and was tabled by Mr Andy Meddick MLA. The amendment had been put on hold for subsequent discussions in the pre-Christmas parliamentary sittings.

As of the end of November, the GFNC has not received a reply from the Premier or Ministers except for the Minister for Water, Lisa Neville, who had replied that she had conveyed the information to the Minister responsible. The Club is not confident that the amendment will be passed given the makeup of the current parliament.

So our focus will now be on calling for the cancellation of the 2020 duck hunting season. As the country finds itself in another drought period affecting most of inland Australia, researchers monitoring waterbird populations are reporting that number of waterbirds may have fallen by as much as 90% in the last four decades. The plight of all birds due to threats of the drought, climate change in general and loss of habitat make it critical that the killing of birds for recreational sport stop.

The club has added its voice to the campaign coordinated by the 'Regional Victorians Opposed to Duck Shooting' on behalf of 25 Field Naturalists and other environmental organisations seeking that the Game Management Authority consider the evidence and act accordingly.

Geelong Field Naturalists Club Policy
Recreational Waterfowl Shooting September 2019

Development of this policy

The GFNC have reviewed their attitude towards recreational shooting of waterfowl several times in the past three decades in response to changes in the environment, societal attitudes, difficulties in policing of regulations applicable to shooting and improved knowledge of the effects of recreational shooting of waterfowl upon disturbance to non-target species.

Key factors influencing this policy include:

Long-term climate change is reducing the number of wetlands across Australia that can be used by waterfowl to successfully breed. There has been a detectable decline in the population numbers of many duck species that are traditionally target species for shooting.

On several occasions, shooting has been allowed to take place despite recommendations from the scientific community to temporarily ban shooting due to low numbers of ducks or concentration of ducks within limited waterways due to drought conditions.

Many waterways open to shooting are also preferred habitat for endangered non-target species such as migratory waders and several endemic species such as Australian Painted Snipe and Australasian Bittern. Disturbance from shooting can force these non-target species to abandon their preferred habitat.

It is acknowledged that some shooting organisations have completed useful wetland management and restoration activities. However, there is no compelling reason that recreational shooting of waterfowl should continue and most Australian States have banned it.

The policy

The Geelong Field Naturalists Club takes the view that no recreational shooting of waterfowl should be allowed on waterways within Australia.

This policy does not include:

- *hunting for the purposes of traditional Aboriginal food gathering or ceremonial functions*
- *population control of waterfowl for agricultural or environmental reasons*

GFNC jackets and vests sales

Jackets $50, Vests $40
Black or navy
Please contact Tracey Hinton with orders Tracey.Hinton@gmail.com

Tax-deductible donations can be made to the Geelong Field Naturalists Environment Fund at any time. Donations will be used for the environmental purposes of the Geelong Field Naturalists Club Inc.

Donate by electronic funds transfer:
CBA Account BSB 063 633 Account No. 1028 7433

Please ensure that the transfer is identified with your name and that it is a donation to the GFN Environment Fund. We will issue you with a numbered receipt suitable for taxation purposes. Donations of $2.00 or more are tax-deductible.

Bird Group excursion report—Freshwater Creek

24 October 2019

Colin Cannard

A huge diversity of ecological niches is why Australia has over 700 bird species. A diversity of wonderful woodland and wetland habitats at the Freeman property in Freshwater Creek, allowed the Mid-week Bird Group to record 60 species of bird on the 24 October outing. A wide diversity of people with widely diverse environmental interests made our visit to Matt and Kylie Freeman's property, Merrijig Creek Estate, such an enjoyable and successful occasion.

After meeting at the woolshed, the owner Matt Freeman and I, the excursion leader, described the environmental history of the property and Matt and Kylie's significant rehabilitation efforts including weed and pest management over the past four years. As the property is approximately 50% farmland and 50% remnant Manna Gum woodland, the group was challenged to consider the varying ways of protecting our environment.

Highlights of the property include approximately 20 acres of aged Manna Gum woodland along Merrijig Creek, many scattered patches of woodland elsewhere and about five small dams throughout the property. The woodland included thousands of nesting opportunities in the abundant old mature trees and some dead trees. Many of the birds seen were in active breeding mode. Approximately 30 nesting boxes, mostly in use, have also been provided.

The diversity of birds was obvious from the start of the four kilometre ramble. Our first stop revealed Red-rumped Parrots, Eastern Rosellas and Rainbow Lorikeets all nesting in a single dead tree. Our third stop involved three species of Woodswallow: White-browed, Masked and Dusky. A Dusky Woodswallow nest was found. Other significant woodland highlights were Crested Shrike-tits, a male White-winged Triller, a Sacred Kingfisher and two calling Olive-backed Orioles.

All four likely cuckoos were found: Pallid, Fan-tailed, Horsefield's Bronze and Shining Bronze. A single Eastern Yellow Robin was seen. This is about as far north as these birds get on the coastal woodland. The dams yielded three species of duck, Masked Lapwings, Black-fronted Dotterels and White-faced Herons. They had all been nesting. Matt, who closely follows the nesting of the birds, pointed out the flimsy nest of a White-faced Heron where young had successfully fledged in the past week. Two nesting boxes, both being attended by Striated Pardalotes were viewed on the house verandah. The eBird list for the day is under Richard and Margaret Alcorn's name on the Anglesea Rd at Blackgate Rd hotspot (see link below).

The orchid lovers in the group were also kept busy. The wildflower potential for the property, now there has been removal of much weed and pests, is very high. The warm sunny day provided many flowering orchids. However the highlight of the day for Matt and many others was the observation of a most photogenic Growling Grass Frog. (see front cover photo). Found by Peter Homan, it was sunning itself for 15 minutes on a provided log in a small dam on Merrijig Creek. Matt had been hearing it for several years, but had never seen one.

As the temperature climbed above 30 degrees we adjourned to the coolness of the woolshed and its collection of old sofas for lunch.

I think that the future of a significant part of wildlife and habitat conservation relies on individuals and private organisations, rather than government. Matt and Kylie Freeman demonstrate that this is possible and that an environmentally sustainable property with business and farming participation in the Surf Coast hinterland is possible. Matt loves people seeing and enjoying his property.

We would all like to thank Matt and Kylie for giving us the opportunity to visit their wonderful property. It is tentatively scheduled for next year's bird program.

See a full bird list from the excursion on eBird:

https://ebird.org/australia/checklist/S60881151

Willie-wagtail on occupied nest 24/10/19

White-browed Woodswallow 24/10/19

Crested Shrike-tit 24/10/19

Photos: David Boyle

November bird observations—some highlights

John Newman and Craig Morley

As late spring (October–November) comes to a close it is interesting to again consider the records of birdlife submitted over recent weeks of unusual weather—with many cold days and even colder winds visiting. We have also had some extreme heat and wind, all of which has influenced the tremendous array of birds recorded.

October saw a celebration of migratory birds drifting south from the dry Australian interior to our wetter coastal strip. This month more have arrived and if one bird characterises this October to November time frame it would be the **White-winged Triller**. Whilst in most years we have some records from our drier northern woodland fringe, this year the triller has been seen in many suburban and rural zones and has been a 'new bird' for numerous back yard lists. Hopefully with so many skilful and sharp eyed observers we will have breeding records in coming weeks.

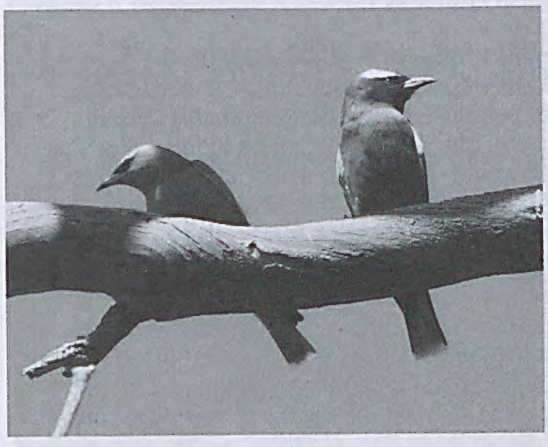
The recent very hot strong winds followed by blustery cool changes saw several much anticipated **Pacific Swift** records over Barwon Heads and Ocean Grove and **White-browed Woodswallows** were seen in the strong winds over Highton and Geelong City. This endearing species was also seen at Inverleigh investigating the dry woodland. It is likely that there would have been, at least, low numbers of **Masked Woodswallows** in some of the high flying flocks. **Sacred Kingfishers** have been seen in the Otways, along the Barwon River and at Meredith and **Brown Songlarks** have also been seen in several open areas around Geelong, given away by their memorable 'rusty cart wheel' call.

The evocative yet monotonous calls of the **Pacific Koel** continue to drift across Highton and there are almost certainly several birds present. Highton and surrounding areas have become the reliable home for this species over several years now. A **Little Lorikeet** in Ocean Grove was an interesting record and the cryptic **Chestnut-rumped Heathwren** is more obvious in spring when they are calling, as one was on a calm sunny morning at Moggs Creek. **Blue-winged Parrots** were probably breeding in a low hollow near the heathwren and another **Blue-winged Parrot** was seen in Beeac.

Wetlands are still holding water early in the summer season and it was great to see many **Spotless Crake** records from Balyang and Jerringot. A **Baillon's Crake** at a farm dam was a thrill. Lake Modewarre is home to numerous shorebirds and a lone **Double-banded Plover** and a small group of **Bar-tailed Godwits** was noteworthy. **Black-tailed Nativehen** only tend to be seen in any numbers after a good breeding season and so several records from different wetland locations was pleasing. **Glossy Ibis** continue to roam the district with up to 23 birds seen along the various Barwon River wetlands, swelling to a group of 100 at Hospital Swamp late in November. Low numbers of **Latham's Snipe** at several locations have been recorded and the often sought **Sanderling** has been seen at Blue Rocks. And at least a low number of **Pink-eared Ducks** flying over Newtown, uttering their evocative chuckling and chortling calls on a still moonless night, indicate that things in the world of nature are always changing!

With many thanks to the bird watchers, listed below, who take the time to observe and then submit their fascinating records to the GFNC website and/or eBird Australia so we can all enjoy what is happening around us as the seasons change, building the picture of changes over time in our local avifauna. Long may this continue.

Andrea Dennett, Angus Hartshorn, Barry Lingham, Bernie Lingham, Chrissy Freestone, Colin Cannard, Craig Morley, David Hollands, David Tytherleigh, David Whelan, Geoff Gates, George Appleby, Graham Possingham, Guy Dutson, Jennie Turner, Jennifer Carr, Jenny Possingham, John Newman, Kaye Traynor, Leeanne Carleton, Lorraine Phelan, Lynne Clarke, Margaret Alcorn, Margaret MacDonald, Paul Schillier, Peter Sullivan, Richard Alcorn, Robert Missen, Tom Fletcher, Trevor Hodson, Wendy Cook.



White-browed Woodswallows, Mt Duneed 24/10/19

Photo: David Boyle

White-browed Woodswallows, Mt Duneed 24/10/19

Photo: Lothar Hohaus

Dusky Woodswallow, Mt Duneed 24/10/19

Photo: Lothar Hohaus

November fauna report

Trevor Pescott for GFNC Fauna Group

Mammals

Platypus: two seen in the Moorabool River below the Dog Rocks Sanctuary on 4 November—apparently they are regularly seen here (GD).

Short-beaked Echidna: a small individual was seen walking along the verge of Vickerys Road, Bellbrae, at 5.30 p.m. on 27 October (GGt). Another was at Taylor Road, Meredith on 12 November— 'I was cutting wood and the rotten core of the fallen tree started moving, and up came an echidna; it was buried in the wood pulp' (PSc). One was photographed in the Messmate woodland just north-east of the Yaugher cemetery on 12 November (TP). An echidna was also noted foraging beside the walking track at Jan Juc on 25 November, probably the same individual seen on the previous day (GGt).

Koala: one seen and about six heard in the two hours after dusk on 23 October in the Brisbane Ranges (GD). On 30 October two were seen in the same tree at the Bannockburn Reserve (GD).

Red-necked Wallaby: four noted along Breakfast Creek Road, Wensleydale, on 11 November (GD), and one was photographed near the Yaugher cemetery on 12 November (TP).

Swamp Wallaby: three were seen along the track that separates the Yaugher pine plantation from the bushland during the late afternoon on 18 November (TP). Two were flushed from thick cover among planted native trees on the west side of Lake Modewarre on 24 November (CFr, GA).

Large Forest Bat: one caught in a harp trap set under River Red Gums beside the Moorabool River, below the Dog Rocks Sanctuary on 25 October (TP).

Rakali: one seen in the flooded 'borrow-pit' beside the Barwon River at Sparrovale on 11 November (GD).

Red Fox: one ran from the bushland into the Yaugher Pine plantation on 18 November (TP).

Brown Hare: one seen near the entrance to the Dog Rocks Sanctuary in Batesford on 25 October (TP). On 3 November four were seen at the Inverleigh NCR, moving between the reserve and the golf course (JPo, GP).

Herpetofauna

Striped Marsh Frog: three heard calling and one seen in small, deep, flooded diggings beside Fridays Track in the Brisbane Ranges on 23 October (GD).

Growling Grass Frog: at least one was photographed during the GFNC excursion to Freemans' property at Freshwater Creek on 24 October ((GFNC), see front cover photo); clearly heard calling from Stephens Road water treatment plant at Bannockburn on 30 October (GD). About five were calling from wetlands at Hospital Swamp, Connewarre, on 11 November (GD).

Eastern Snake-necked Turtle: one found dead on Swan Bay Road near the reservoir at Marcus Hill on 27 October (GD).

Eastern Three-lined Skink: one observed on the Ocean Grove beach and another on the Queenscliff Rail Trail on 10 November (GD). Five were seen at the Floating Islands Reserve under sheets of roofing iron and basking on rocks on 15 November (BL,GD). One was seen firmly held in the beak of a kookaburra perched on power lines beside Cape Otway Road, Winchelsea South, on 24 November (TP).

Laughing Kookaburra with Eastern Three-lined Skink. Winchelsea South 24/11/19

Photo: Trevor Pescott

Metallic Skink: three found under a metal cover over a roadside culvert beside Banks Road, Marcus Hill on 10 November (GD).

Black Rock Skink: three seen basking among rocks on the sloping rock face above the wetland at the Floating Islands Reserve on 15 November (BL,GD).

Garden Skink: one seen beside the Moorabool River below the Dog Rocks Sanctuary on 24 October (TP).

Bougainville's Skink: two found under sheets of roofing iron at the Floating Islands Reserve on 15 November (BL,GD).

Southern Grass Skink: at least six noted basking on rocks at the Floating Islands Reserve on 15 November (BL,GD).

Swampland Cool Skink: one basking on timber in a kikuyu infested ditch beside Fellows Road, Point Lonsdale on 10 November (GD).

Blotched Blue-tongue Lizard: at 12.30 p.m. on 27 October a small individual was basking on the edge of the walking track behind the golf course at Jan Juc. It was seen two hours later on the opposite side of the track. 'It was having a difficult time shedding its skin, so I gently removed skin pieces from the head, back and ears' (GGt). One was found road-killed on the Bambra-Deans Marsh Road on 28 October (TP), and another on the Bellbrae-Torquay Road 300 m east of the roundabout on 30 October (PH), while a third was found road-killed on the highway at Deep Creek Reserve, Torquay on 31 October (GGt). One was seen crossing Surf Coast Walk near Bells Beach on 17 November and another road-killed on Bells Beach Road on 25 November (GGt). On a brighter note, a pair was seen mating in coastal grassy scrub beside the Anglesea River estuary on 17 November (GD).

Eastern Blue-tongue Lizard: one road-killed on Barwarre Road, Grovedale on 23 October (PHu), and

another on Forest Road at Serendip Sanctuary, Lara on 29 October (TP).

Lowland Copperhead: one found dead on De Motts Road, Anakie on 23 October (GD). One was seen at Point Lonsdale between the railway and the saltmarsh on 10 November (GD), and another was noted basking in grass near a stone fence at the Floating Islands Reserve on 15 November (BL,GD).

Tiger Snake: one was noted on the Jarosite Track at Pt Addis on 28 October— it was in the process of raiding a Buff-rumped Thornbills' nest, eventually eating all the nestlings! (PCr). One was basking on Cemetery Road at Yaugher near the pine plantation on 18 November (TP), and a large, sleek individual was noted crossing the riverside path at Breakwater on 21 November (AD).

Little Whip Snake: two found under the same sheet of roofing iron at the Floating Islands Reserve on 15 November (BL,GD).

Eastern Brown Snake: a large adult was found under some debris at the Bannockburn Flora/Fauna Reserve on 30 October (GD). At the Floating Islands Reserve two were noted, one under a sheet of roofing iron and the other basking on rocks near the wetland on 15 November (BL,GD).

Observers: thanks to all the observers who listed their observations on the GFNC web-page, or emailed them directly to me—AD, Andrea Dennett; BL, Barry Lingham; CFr, Chrissy Freestone; GA, George Appleby; GD, Guy Dutson; GGt, Geoff Gates; GP, Graham Possingham; JPo, Jenny Possingham; PCr, Peter Crowcroft; PH, Peter Homan; PSc, Paul Schillier; PHu, Phil Hunter; TP, Trevor Pescott.

Emerging Imperial Jezebel Butterfly at (L-R) 20 seconds, 3.5 minutes and 6.5 minutes Bambra wetland 18/10/19

Photos: Lothar Hohaus

Fully emerged Imperial Jezebel Butterflies Bambra wetland 18/10/19

Photo: Trevor Pescott

Next fauna surveys

Gherang Gherang Bushland Reserve, Forest Road

5–8 December

Unfortunately our planned survey here in November was cancelled due to wet and windy weather. But it is worth another try this month. A bonus is likely to be warmer weather so that we will be able to set up the two harp traps on each of the nights.

Thursday 5 December: 1.00 p.m.—meet at the north entrance to the reserve on Forest Road

Friday 6 to Sunday 8 December: 8.00 a.m.—meet at the entrance each morning to check the equipment.

(Note: always check the bi-weekly GFNC news in case there is a need to change the survey site or other details)

Note: our **annual meeting** when we will discuss the program for 2020 will be held at the Ocean Grove Nature Reserve Information Centre at 10.00 a.m. on Saturday 11 January 2020.

Left: Native bee genus *Lasioglossum* visiting a *Wahlenbergia* (bluebells) flower

Right: Jewel beetle family Buprestidae, possibly genus *Castiarina* visiting *Ptilotus macrocephalus* (Feather-heads)

Inverleigh Nature Conservation Reserve as part of the 'Wild Pollinator Count' 17/11/19

Photos Helen Schofield

November butterfly report

Valda Dedman

The Common Browns are back, right on schedule, and the Green Grass-darts have appeared, one pair in a spiral dance. It's unclear whether this is a mating dance or males competing for territory. One source says that males can't tell the difference so will try to 'dance' with any other butterfly. They were in Graham Possingham's garden. He notes 'Last year first date seen here was 26 Oct: very similar. In 2017 it was 15 Oct. In 2016 it was 16 Nov.' No Caper Whites were recorded this month, Moggs Creek was this month's hot spot.

John Newman's breeding of the Dainty Swallowtail is still unfinished. Here is what he says:_'*The final addendum to my story that began last summer. The Dainty Swallowtails that laid eggs on my citrus and became caterpillars adapted to life in my Highton study over winter and dutifully formed chrysalises. There were three, one was mangled but two looked pretty good. Here they have sat since about April and last Thursday one emerged as an adult!!! It had a completely unformed wing on one side so was never viable but the rest of it looked pretty good. I put it outside for a photoshoot and it was gone the next day, presumably eaten or such. I did not get to see it fully inflate the good wing with having to go out that arvo/evening. So in a way, the operation was a success but the patient died. The other chrysalis still looks good but I guess we will see.*'

Observers:
BL, Barry Lingham; GP, Graham Possingham; JN, John Newman: JPo, Jenny Possingham; LH, Lothar Hohaus; TP, Trevor Pescott

Heath Sand-skipper	29/10/19	Moggs Creek	at least one on Gentle Annie Track, photographed	JN
Green Grass-dart	28/10/19	Highton	4 in garden, 2 in a spiral dance	GP
	12/11/19	Victoria Terrace Belmont	1	TP
	14/11/19	Highton	1 in house garden	JN
	18/11/19	Harrison Court Highton	1	JPo
Imperial Jezebel	18/10/19	Bambra wetland	Group seen emerging from their chrysalises	LH, TP
	29/10/19	Moggs Creek	1 fluttering about low tree canopy in creek bed on Circuit Walk	JN
Common Brown	11/11/19	Edwards Point NCR (Charlies Hole)	1 fresh male	BL, TP
	11/11/19	Victoria Terrace Belmont	1 male, first here this season	TP
	17/11/19	Lara township	1	JPo
	18/11/19	Geelong Botanic Gardens	2	JPo
	24/11/19	Aireys Inlet	1	JN
Varied Sword-grass Brown	24/11/19	Yaugher	2, others later in day at the Yaugher plantation	TP
Meadow Argus	22/10/19	Sparrowvale, area not open to public	Very old and battered looking butterfly that has probably survived the winter	BL
Australian Painted Lady	29/1019	Moggs Creek	6 along Gentle Annie Track	JN
Yellow Admiral	22/10/19	Sparrovale Wetlands, Charlemont	1	JN
Bright Copper	29/10/19	Moggs Creek	at least 4 seen on Gentle Annie track above Moggs Creek	JN
Varied Dusky-blue	29/10/19	Moggs Creek	at least 4 on Gentle Annie Track, probably more	JN
Saltbush Blue	22/10/19	Jerringot, Belmont Common	one at bushes at entry to bird hide	JN

Insectageddon?

Lynne Clarke

How do you reap a wonderful crop of blueberries? Last year I thought I had worked out exactly what to do. I had put them in big pots, given them acidic soil, fed and watered them according to direction, and they were thriving. Every twig had masses of flowers and I looked forward to a bumper crop.

As the season progressed, I was very disappointed to see that the majority of flowers dropped without developing fruit. At harvest time I had some nice blueberries, but only a few. What had I done wrong? What had happened?

Eventually it occurred to me that it might be a pollinator problem.

At Christmas I was given an engaging book called *A Sting in the Tale*, by Dave Goulson. This book told the story of his obsession, from the age of seven, with wildlife, particularly insects, in Shropshire. At that early age he was permitted to plant many insect-attracting species in the garden; build a rockery; and enlarge the pond, stocking it with all manner of creatures. He went on to study entomology and is now Professor of Biology at the University of Sussex. He has made bumblebees his lifetime focus. With many of his PhD students, he has demonstrated how far bees travel, how they navigate, and the challenges they face. In the second half of the twentieth century, changed farming practices resulted in their numbers plummeting, and some once-common species almost became extinct in the British Isles.

In 2006 he wondrously (and hilariously!) established the *Bumblebee Conservation Trust*. The Trust encourages people, particularly children, to provide bee-friendly habitat in the form of wildflower meadows and garden plantings, and to keep and pass on records of sightings. He also recounts the fascinating story of the development of his own wildflower meadow in France, where an ancient farm once operated.

I was delighted to find that Dave Goulson had followed this book with another, *A Buzz in the Meadow*, which describes many other fascinating insects to be found in his French meadow. But Part Three of this book is devastating (Goulson 2014, pp. 255–288).

Despite all his, and others' efforts, including that of the British government which now provides subsidies to farmers to enable them to promote biodiversity on their farms, insect numbers continue to decline.

Many of us remember that in October 2006, in the United States of America, hundreds of thousands of honeybee hives that had seemed perfectly healthy one day were deserted the next. This disaster, called Colony Collapse Disorder (CCD) spawned an extraordinary body of research (*Pollinator Protection* 2018). It seems that a multitude of factors were involved. The *Varroa* mite, which has spread throughout the world (except for Australia) is probably implicated, combined with the fact that American beehives are transported to pollinate huge monocultures, resulting in a poor diet for bees.

What tipped them over the edge was probably the widespread use of neonicotinoids, 'neonics' for short—a class of insecticide which are synthetic variants of nicotine and had for some time been suspected of harming bees. They attack the insect's nerve receptor and brain and are extremely toxic in very small amounts. One gram can give 250 million bees a lethal dose (Goulson 2014, p.197).

The advantage of neonics to farmers is that they can be applied to (or coat) the seeds. The germinating seedling absorbs the chemical, which spreads throughout the plant. Any herbivorous insect that eats any part of the crop dies (Goulson 2014, pp. 257–258). Thus, farmers no longer need repeated and expensive sprays, and workers are no longer potentially exposed to nerve agents.

Neonics are also present in the pollen and nectar of plants, but studies by the manufacturers had shown they did not harm bees in such small amounts. These studies took place only over a few days. When CCD occurred, other studies were conducted over a season and showed that bumblebee nests exposed to neonics declined markedly, and 85% fewer queens were produced. In addition, bees were much more likely to get lost on the way home; to collect far less pollen; and egg-laying was reduced by a third. Neonics were also shown to persist in soil and be soluble in water, having unknown effects on invertebrates that live in the soil as well as on aquatic insects (Goulson 2014, pp. 258–279).

Neonicotinoids are a class of insecticides and include imidacloprid—the world's most widely used insecticide (ACS 2014). Given its widespread use it poses the greatest potential environmental concern. They have been banned in the European Union and were banned by President Obama. This last decision was reversed by the Trump administration (*Neonictinoid*, Wikipedia). They have not been banned in Australia. However, in November 2019, the Australian Pesticides and Veterinary Medicines Authority (APVMA) decided to commence a chemical reconsideration of neonicotinoid insecticides to reconsider approved active constituents, registrations of selected products containing neonicotinoids, and all associated label approvals on the basis of risks to the environment (APVMA, *Neonictinoids).*

Bunnings was to remove a pesticide allegedly linked to bee deaths from its shelves at the end of 2018 (Schultz 2018), and when I looked at the *Mr Fothergill* website it told me that neonicotinoids are not used on any of its seeds. However, I recently found Yates brand insecticides containing neonics in local nurseries.

Last week I read Dave Goulson's latest book, *The Garden Jungle or Gardening to Save the Planet.* In his usual engaging and laconic but powerful style, he brings new insecticides to our attention; Acelepryn and Naled (Goulson 2019, pp. 65–69). He predicts that the cycle will continue with new products being declared harmless, and then perhaps a fifteen-year gap until on-the-ground effects are independently and scientifically described. DDT and Rachel Carson's *Silent Spring* all over again.

In August 2017, an article put out by Allianz Insurance lists the three commonly used neonics in Australia; the range of crops on which they are registered for use; and the various methods of application. This article, along with a report by Jess Davis, *ABC News Rural*, cite that levels

of imidacloprid were discovered in the bodies of dead parrots in Western Victoria. It is commonly used in seed treatments.

In April 2018, *ABC News Rural* featured a segment on the issue. It quoted the APVMA as saying that there is no evidence of declining bee populations in Australia. Dr Megan Halcroft, who researches native pollinating insects, said 'Of course there's no evidence, there have been no studies!' (Bryant, S. et al. 2018). She wants farmers to switch to biological controls like parasites and other natural predators (e.g. lacewings, hoverflies, assassin bugs, ladybugs) and plant as much native vegetation and habitat as they can to encourage native pollinators and provide alternative food sources for these predators, for when the crops are not present.

The ABC *Foreign Correspondent* program on 15 October 2019, called 'Insectageddon,' featured among other significant people, our old friend Dave Goulson speaking very gently about providing quality insect habitat. Yes, the program was about Europe but the issues don't seem to be very different here.

My experience is that we don't have to clean as many splattered insects from the windows of our vehicles when we travel on long journeys now. It seems to me that bird numbers are less than they were years ago, especially the insectivorous ones. Others have said they concur with me on this.

Maybe lack of pollinators *is* the reason I didn't have many blueberries last year. But perhaps I am wrong. Perhaps the weather was inimical to pollinators that season. I have been watching my blueberries like a hawk since they came into flower a few weeks back. So far, I have seen little flies, bigger ones with shiny blue abdomens, honeybees and hoverflies diligently working them when the weather is fine. Not many, but some. Will they be enough? Broad beans have set, but nowhere near as many as I would expect considering the enormous number of flowers. Yes, I do grow borage and alyssum, especially to encourage pollinators.

My impressions are not definitive. But we can all watch out more carefully for these extraordinary little creatures. Jenny Possingham drew my attention to a program called *Wild Pollinator Count* in which we can all participate. Visit wildpollinatorcount.com

And we can all check the containers at the back of our sheds and get rid of any neonics (anything with imidacloprid or fipronil in the name, Confidor and others) we may have inadvertently purchased years ago. Many of us have been pursuing Dr Halcroft's principles in our own small way for years, encouraging indigenous habitat and the little creatures it supports. But I, at least, need to do more.

One more thing; we can make our voices heard—individually and collectively.

Dave Goulson does not want us to despair. Reflecting on his experiences as a seven-year-old he says 'I remain to this day amazed at how quickly wildlife appears in a garden if given just a little encouragement' (Goulson 2013, p.5).' We live in a magnificent world of amazing resilience, especially when we properly fulfil our ancient role as its stewards.

Postscript 19 November (and four weeks since I wrote this article):
On my return yesterday from two weeks away, I went out immediately to check on my garden. One of my blueberries is massed with swelling green berries! The other less so, but it flowered at a slightly earlier time. Hoverflies are still floating around them. Good little hoverflies. I do not think that any conclusions can be drawn, but will keep watching.

References

American Chemical Society (ACS) (2014) *Imidacloprid.* https://bit.ly/32HrOxz

Australian Pesticides and Veterinary Medicines Authority (APVMA) *Neonicotinoids.* https://apvma.gov.au/node/57031

Bryant, S. et al. (2018) 'EU ban on neonicotinoids triggers call for a similar ban in Australia to protect bees', *ABC News Rural*, April 30. https://ab.co/2rGc2WT

Bumblebee Conservation Trust. https://www.bumblebeeconservation.org/

Campbell, E. (2019) 'Insectageddon', *Foreign Correspondent*, ABC TV, October 15. https://www.abc.net.au/foreign/episodes/

Davis, J. (2017) 'Bird deaths linked to common insecticide that is banned in Europe', *ABC News Rural*, 10 August. https://ab.co/2QbNZJs

Goulson, D. (2013) *A Sting in the Tale.* London, Jonathan Cape.

Goulson, D. (2014) *A Buzz in the Meadow.* London, Jonathan Cape.

Goulson, D. (2019) *The Garden Jungle or Gardening to Save the Planet.* London, Jonathan Cape.

Primacy (Allianz Insurance) (2017) *'Where does Australia stand on neonicotinoid insecticides?',* Primacy website. https://bit.ly/2Oa9EPE

Schultz, A. (2018) 'Bunnings to pull pesticide allegedly linked to bee deaths', *Sydney Morning Herald,* 13 January. https://bit.ly/2BKXneH

United States Environmental Protection Agency (EPA) (2018) *Pollinator Protection.* https://www.epa.gov/pollinator-protection/colony-collapse-disorder

There are many other discussions of these issues to be found on the internet.

Contributions invited for the *Geelong Naturalist*

Members are encouraged to submit short articles and photos for consideration for the *Geelong Naturalist* each month. If you have observed and/or photographed something interesting in the natural world of Geelong and its surrounds, please send it to us!

Please refer inside front cover for submission details.

Excursion report—Carlisle River

17 November 2019

Leaders: Tracey Hinton and Barry Lingham

Barry Lingham, Bernie Lingham, Lorraine Phelan, Alison Watson

The western edges of the Otway forests are very different to the dense forest of the central Otway areas. The zone includes the area with the highest average rainfall in Victoria and it is dominated by wet heathy open forest growing on sandy soils. The area hosts a prolific range of flowering plants, many of which are endemic to this region. The most common tree of the heathland was the Shining Peppermint *Eucalyptus falciformis*. These trees were covered in lovely white flowers and they combined with the flowers of teatree species along the roadside verges to create a pleasing vista to travellers entering the Carlisle area.

Most people attending the excursion had not visited this area previously, including members from FNC Ballarat who joined us for the day. The last GFNC excursion to the Carlisle State Park was in 2004.

Our first stop for the day was at Westwicks Rd, south of the Carlisle River hamlet. A brief look around indicated that there were some plants we knew from the Anglesea heath area but there was a plethora of plants unfamiliar to us. The large sedge-like plant known as Button-grass is common in Tasmania but restricted to a few disparate locations in Victoria. This species can form a dense thicket of vegetation in sandy, poorly drained wet areas. The rarely seen Eastern Ground Parrot is listed as vulnerable in Victoria and it favours areas of Button-grass. The bird has been reported from the Carlisle Button-grass zones in the past but there have been few records in recent years.

The bird watchers headed up a hill to an area that had been burned about six months ago. The botanical group members spent nearly two hours observing, identifying and photographing plants and barely moved 150 metres in that time! Plants not usually seen near Geelong included several species of wattle, teatree, goodenia and hibbertia. The discovery of several Large Tongue Orchid plants (leaf and flower buds) was exciting—they will not produce their unusual flower till later in the year. Bird species of note included Crescent Honeyeaters, an Olive Whistler, White-winged Trillers and Southern Emu-wren.

After a pleasant lunch at the Carlisle recreation ground we moved on to a new site near the intersection of Old Carlisle Track and the Gellibrand-Carlisle Road. Many new swampy heathland plants were added to the list, including species of epacris and melaleuca. Flying Duck Orchids were flowering and were well-photographed. A few sun orchids had not yet bloomed and therefore could not be identified. They were probably the Spotted Sun Orchid *Thelymitra ixioides*.

Our next stop was again on Old Carlisle Track at a site that had a nice stand of Button-grass and thick growth of heath along the creek line. We were hoping to observe Beautiful Firetails that had been heard calling at the site previously, but they were neither seen nor heard on our excursion. A Southern Water Skink and a young Three-lined Skink were noted near the creek. The last stop of our day was in nice heathland along Cricket Pitch Track where a late flowering Waxlip Orchid was seen, plus a large 'flock' of Flying Duck Orchids.

Most of the group met again at the great café in Gellibrand to discuss the events of the day and we all agreed that we should revisit this fascinating area again soon.

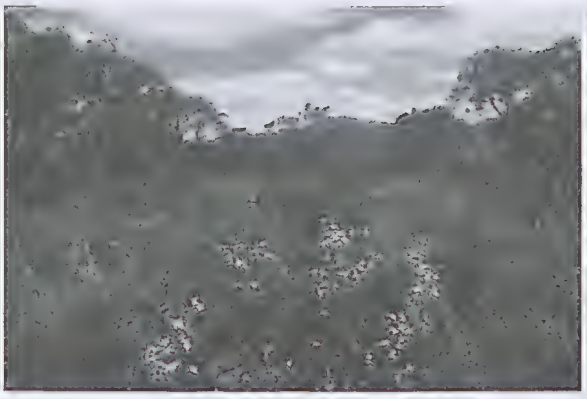
Plant list for the GFNC excursion, Carlisle State Park, 17 November 2019

Scientific name	Common name	Westwicks Rd	Old Carlisle Rd
Acacia genistifolia	Spreading Wattle	✓	
Acacia longifolia subsp. *sophorae*	Coast Wattle	✓	
Acacia myrtifolia	Myrtle Wattle	✓	✓
Acacia suaveolens	Sweet Wattle	✓	
Acrotriche serrulata	Honey-pots	✓	✓
Allocasuarina paludosa	Scrub Sheoak	✓	
Amperea xiphoclada var. *xiphoclada*	Broom Spurge	✓	✓
Aotus ericoides	Common Aotus	✓	
Aphelia gracilis	Slender Aphelia	✓	
Argentipallium blandowskianum	Woolly Everlasting		✓
Argentipallium obtusifolium	Blunt Everlasting	✓	
Banksia marginata	Silver Banksia	✓	✓
Bauera rubioides	Wiry Bauera	✓	✓
Boronia nana var. *nana*	Dwarf Boronia	✓	✓
Brachyloma ciliatum	Fringed Brachyloma	✓	✓
Burchardia umbellata	Milkmaids	✓	✓

Plant list for the GFNC excursion, Carlisle State Park, 17 November 2019, continued.

Scientific name	Common name	Westwicks Rd	Old Carlisle Rd
Caleana major	Flying Duck Orchid		✓
Calochilus robertsonii	Purple Beard-orchid		✓
Cassytha glabella	Slender Dodder-laurel	✓	✓
Cassytha melantha	Coarse Dodder-laurel	✓	
Caesia parviflora	Pale Grass-lily	✓	
Comesperma calymega	Blue-spike Milkwort	✓	✓
Coronidium scorpioides	Button Everlasting	✓	
Cryptostylis subulata	Large Tongue-orchid	✓	✓
Dillwynia glaberrima	Smooth Parrot-pea	✓	
Drosera auriculata	Tall Sundew	✓	
Drosera glanduligera	Scarlet Sundew		✓
Drosera macrantha	Climbing Sundew	✓	✓
Empodisma minus	Speading Rope-rush	✓	✓
Epacris lanuginosa	Wooly-Style Heath		✓
Epacris obtusifolia	Blunt-leaf Heath	✓	
Eucalyptus baxteri	Brown Stringybark	✓	✓
Eucalyptus falciformis	Shining Peppermint		✓
Eucalyptus radiata subsp. *radiata*	Narrow-leaved Peppermint	✓	
Gahnia radula	Thatch Saw-sedge	✓	✓
Gleichenia microphylla	Scrambling Coral-fern	✓	
Gompholobium ecostatum	Dwarf Wedge-pea		✓
Gompholobium huegelii	Common Wedge-pea	✓	✓
Gonocarpus tetragynus	Common Raspwort	✓	✓
Goodenia geniculata	Bent Goodenia	✓	✓
Goodenia lanata	Trailing Goodenia	✓	
Goodenia ovata	Hop Goodenia	✓	✓
Gymnoschoenus sphaerocephalus	Button-grass	✓	
Hakea repullulans	Western Furze Hakea	✓	
Hakea ulicina	Furze Hakea	✓	✓
Hibbertia acicularis	Prickly Guinea-flower		✓
Hibbertia fasciculata var. *prostrata*	Bundled Guinea-flower		✓
Hibbertia procumbens	Prostrate Guinea-flower	✓	
Hibbertia riparia	Erect Guinea-flower	✓	✓
Hypolaena fastigiata	Tassle Rope-rush	✓	
Laxmannia orientalis	Dwarf Wire-lily	✓	✓
Lepidosperma concavum	Sandhill Sword-sedge	✓	✓
Leptospermum continentale	Prickly Teatree	✓	✓
Leptospermum lanigerum	Woolly Teatree	✓	✓
Leptospermum myrsinoides	Heath Teatree		✓
Leucopogon australis	Spike Beard-heath		✓
Melaleuca squamea	Swamp Honey-myrtle	✓	✓
Melaleuca squarrosa	Scented Paperbark	✓	
Microtis sp.	Onion Orchid	✓	
Mitrasacme pilosa var. *pilosa*	Hairy Mitrewort		✓
Mitrasacme pilosa var. *stuartii*	Hairy Mitrewort	✓	
Olearia phlogopappa	Dusty Daisy-bush	✓	
Opercularia varia	Variable Stinkweed	✓	✓
Patersonia fragilis	Short Purple-flag	✓	✓
Persoonia juniperina	Prickly Geebung	✓	✓
Pimelea humilis	Common Rice-flower	✓	✓
Platylobium obtusangulum	Common Flat-pea	✓	
Poranthera microphylla	Small Paranthera	✓	
Pultenaea prolifera	Otway Bush-pea	✓	
Selaginella uliginosa	Swamp Selaginella	✓	✓
Sphaerolobium minus	Globe-pea		✓
Sprengelia incarnata	Pink Swamp Heath	✓	
Spyridium parvifolium	Dusty Miller	✓	✓
Stylidium graminifolium	Grass Triggerplant		✓
Tetratheca ciliata	Pink-bells	✓	
Viola hederacea	Ivy-leaved Violet	✓	✓
Xanthorrhoea australis	Austral Grass-tree	✓	
Xanthosia tasmanica	Southern Xanthosia	✓	

White-winged Triller, Carlisle River 17/11/19



Heathy woodland, Carlisle River 17/11/19

Afternoon tea at the Gellibrand River General Store 17/11/19

Photos: Chrissy Freestone

Roadside Conservation Project

Phil Hunter

On Thursday 24 October, Barry Lingham and I were presented with a $500 cheque from the Ashbury Community Fund to continue roadside vegetation conservation works in Armstrong Creek and Mt Duneed. The funding is a Dennis Family initiative that offers grants to local not-for-profit organisations that provide a community service to residents within Armstrong Creek and surrounding areas.

The Geelong Field Naturalists Club received the funding to survey further roadside vegetation in the Armstrong Creek Mt Duneed area; and to facilitate a 'walk and talk' for local residents where people can learn about the value of roadside vegetation and about some of the local species growing there. These activities will take place in 2020.

I am heading up project works, which are part of a greater mission by the Geelong Field Naturalists Club to protect and restore roadside vegetation in Armstrong Creek and Mt Duneed, with a focus on grassy and herbaceous plants. Much of the area is represented by EVC (Ecological Vegetation Class) 175 and 55 which are both listed as 'Endangered' in the Otway Plain and Victorian Volcanic Plain Bioregions. These roadsides are under increasing pressure from urban development and infrastructure.

Earlier this year I produced a report titled *Significant Grassy and Herbaceous Vegetation of Armstrong Creek and Mt Duneed*, which I distributed to stakeholders including the City of Greater Geelong (CoGG), and DELWP. The report is also accessible to the general public and will be made available on the GFNC website. As a result of the report and conversations with CoGG, new roadside vegetation signs have recently been installed and watsonia has been sprayed on a few roadsides in Mt Duneed this winter/spring. Many thanks to the City of Greater Geelong for getting the ball rolling.

There is so much left to do. It is hoped this grant will help to continue the good work and ensure the protection and enhancement of these roadsides for many years to come.

Ashbury Community Fund presentation. L-R: Grant Dennis, Phil Hunter and Barry Lingham 24/10/19

New roadside vegetation sign on Barwarre Rd, Armstrong Creek, 22/10/19

Watsonia control on Feehans Rd, Mt Duneed 12/11/19

Photos: Phil Hunter

Out and about: Port Fairy and nearby

Valda Dedman

At the end of October, we stayed at Port Fairy in western Victoria for a few days. The weather was fine and warm, maximum around 25°C and we were able to walk and appreciate this historic town, in which many of the early buildings, including the school and churches, were built of the local basalt.

Port Fairy is built on a series of lava flows. The basalt is about 300 000 years old and originated from Mount Rouse. Dunes and shallow sea deposits of the last interglacial period, when the climate was warmer, overlie the basalt, as well as the modern unconsolidated dunes on the shoreline. Lava from Mount Rouse, at Penshurst, flowed 60 kilometres south to the coast at Port Fairy. The path of the lava can be seen today along creek valleys, as stony rises, lava tubes and caves, and at the Port Fairy beach extending out to sea (Hamilton Victoria). These are the longest lava flows in the Western District volcanic province. It is not clear whether they were separated by extended periods of dormancy or occurred within a very short time. The Mount Rouse eruption could have lasted less than a year. (Grimes 2013).

Griffiths Island, located at the mouth of the Moyne River in Port Fairy, is a dune habitat of 37 hectares of remnant coastal scrub and grassland. It was first reserved as a public park in 1902. Before that, it had a chequered history. Originally three islands (Goat, Rabbit and Griffiths) which were joined by siltation after the Moyne River training walls were constructed during the 1870s to keep the mouth permanently open, and direct the river into Port Fairy Bay. John Griffiths had a whaling station and had a large timber house built on the island in 1837. The whales were hunted almost to extinction, so the station closed. A Mrs Dunlop maintained a kind of mission to educate aboriginals that lasted for only three years from 1850 to 1853. The lighthouse and lighthouse keeper's cottage were built from bluestone sourced from the island. Only the lighthouse remains, now operated by solar power.

Today Griffiths Island is a sanctuary for plants, birds and animals and is known for its Short-tailed Shearwater (Mutton bird) breeding colony. Usually in late October there should be up to forty thousand birds there, but this year only about 100 had turned up. (Miles 2019) This is a cause for grave concern. The Shearwaters are very precise as to their arrival from the northern hemisphere. 22nd September is the usual date, with a range of 19th to 25th September. Individuals return to the same nest burrow they occupied the previous year and generally mate for life. Mating takes place in early November after burrows have been dug or cleaned out and the birds leave for a 13 day 'honeymoon' at sea on 12th November. They return for egg laying on 25th November. The adults depart for a long journey past Japan to Siberia and Alaska on 16th April, and the young depart on 3rd May, following the same route. Birds return south along the North American shore and then southwest across the Pacific.

Lady Julia Percy Island (Deen Mar) is much older than other volcanoes in the region. It lies about 19 kilometres west of Port Fairy and about eight kilometres offshore. It is Australia's only offshore volcano and the only large basalt island off the shore of Western Victoria. Formed some seven million years ago, it is also unusual in being built by both submarine and terrestrial eruptions. It provides exposures of internal volcanic structure, including a volcanic vent. Six layers of lava, varying in thickness from ten metres to three metres, interspersed with layers of tuff can be seen exposed on the cliff face. The island is flat-topped, with high cliffs and only one safe landing place. Permission is needed to land there. The island also provides examples of pillow lava. When lava erupts under water a typical type of lava called pillow lava occurs. The lava moves forward in a series of pods. Each or pillow has a chilled skin around a molten interior. As more lava is supplied from within the flow, the skin splits and a new pillow forms. (Birch 1994)

The McCoy Society (established by staff and students of the Zoology Department at University of Melbourne) visited Lacy Julia Percy Island in 1936, staying for six weeks, from 11 January until 20 February, with a rotating roster of scientists changing weekly. A complete ecological survey was envisaged and the team included geologists, botanists and microbiologists, as well as zoologists specialising in marine invertebrates, insects, worms, crustaceans, spiders, fish, reptiles, birds and mammals.The Society collected widely, including marine invertebrates such as seastars, sea squirts and barnacles. (Long 2017).

Lady Julia Percy Island was visited by the Geelong Wildlife Research Group (GWRS) and some other naturalists in December 1963. The main purpose was a bird survey and included the banding of Fairy Prions, (which have a breeding colony there), Short-tailed Shearwaters, Little Penguins and Diving Petrels. The group also recorded and photographed fur seals. The fur seal colony is the largest in Victoria. Australian Fur Seals form breeding colonies from mid-November to mid-January. Females usually give birth to a single pup. There are nine established breeding colonies in Victoria. Seals were nearly exterminated by the sealers of the early nineteenth century. The sealers did not settle on the island, but there are two graves dated 1822 and 1828 (Wikipedia, Port Fairy Tourist Information).

The GWRS was not initially part of the Geelong Field Naturalists Club. It was set up in 1962, hoping to act as a sub-group of the Victorian Ornithological Research Group, but that did not happen and it became a de-facto special interest group of the club and dissolved after about five years. (Pescott 2017).

Although the GWRS did no formal botanical survey at the time, they did find the Shore Spleenwort *Asplenium obtusatum,* a maritime fern, growing on basalt. In other locations in Victoria, all to the east, it grows on granite. The GWRS also found grasses, bracken, variable groundsel, goosefoot and sea celery. There have never been trees on Lady Julia Percy island. However, many of the small plants have been eliminated by the rabbits. Cliff Beauglehole visited in 1960 and recorded 90 plants, including onion-orchids, buttercups and bluebells. (Pescott 1965).

On the way home we visited Hopkins Falls, where water spills 12 metres down over a basalt barrier 90 metres wide. The falls were quite spectacular with a good flow. At the side we could see basalt columns. These columns formed during cooling of a lava flow. They start at the surface of the flow, as a pattern of polygonal cracks, these move into the interior of the flow as it cools, producing polygonal columns. (Birch 1994).

We had lunch at Tower Hill, where a persistent emu tried to eat our sandwiches until the ranger shooed it away. Tower Hill is one of the largest maar volcanoes in the world

meaning that it resulted from an explosion which occured when groundwater came into contact with hot lava or magma. It was formed about 25,000 years ago when rising magma met layers of water-saturated sedimentary rock below the ground. High pressure super-heated steam was produced and exploded with immense force, blasting magma and shattered rock high into the air. These fell to form layers of tuff or ash around the 3km wide shallow crater, which later filled with water to form a take . Later, further eruptions occurred inside the crater, forming scoria cones within the lake. There is very little basalt in the fragments, but traces of olivine have been found.

Tower Hill was declared a National Park in 1892, Victoria's first. However, it was sadly neglected and is now the Tower Hill State Wildlife Reserve. It was used for stock pasture, crop growing, stone quarrying, a source of free timber, an unofficial motorcycle track and a rubbish dump. By the middle of the twentieth century it was almost completely denuded and little wildlife remained. In 1961 under the then Fisheries and Wildlife Department it became a State Game Reserve and an ambitious replanting program was begun. Eugene von Guerard's 1855 painting of Tower Hill was used as a reference. By 1981 over 300 000 trees, shrubs, herbs and grasses had been planted with the help of volunteers and weeds were systematically eradicated. Grey kangaroos, wallabies, koalas, echidnas, possums and those pesky emus are now reintroduced into their former habitat (Hamilton Victoria, Port Fairy Tourist Information, Wikipedia, TowerHill.org, Worgundidj.org).

References:

Birch, B. (1994). *Volcanoes in Victoria.* Royal Society of Victoria, Melbourne.

Grimes, K. (2013). The Mount Rouse Volcano. Hamilton Field Naturalists Club, hamilton-field-naturalists-club-Victoria.org.au

Hamilton Victoria. *Victoria's Volcanic Plains.* http://hamiltonvictoria.com.au/Main.asp?_=Volcanic%20Plain

Long, R. (2017). *The McCoy Society's 1936 Expedition to Lady Julia Percy Island. Specimens in the Tiegs Zoology Museum.* University of Melbourne Collections, issue 21, December 2017. https://museumsandcollections.unimelb.edu.au/_data/assets/pdf_file/0004/2803441/02_Long_Lady-Julia-Percy-Island-21.pdf

Miles, D. (2019) ABC South West Vic. https://www.abc.net.au/news/2019-10-25/mutton-bird-mystery-deepens-griffiths-island/11627720

Pescott, T. (1965). *A Visit to Lady Julia Percy Island.* Vic Nat. 81, p.290–301.

Pescott, T. (2017). *Birds and Botanists.* T. Pescott, Geelong.

Port Fairy Tourist Information. Griffiths Island information brochures and webpages: Griffiths Island. Lady Julia Percy Island, Tower Hill Reserve) https://www.portfairyaustralia.com.au

TowerHill.org *Tower Hill Reserve: History and Heritage.* http://www.towerhill.org.au/images/towerhill/publication/Heritage-story-Tower-Hill-Reserve-history-and-heritage.pdf

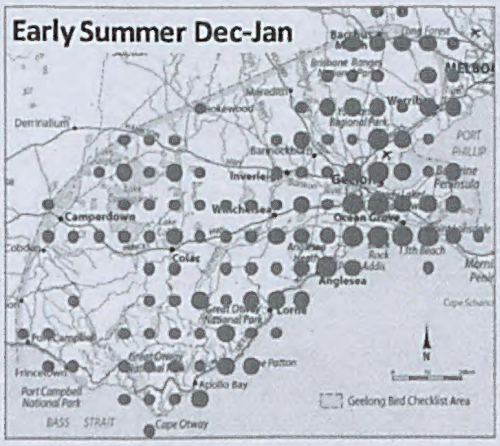
Wikipedia – Lady Julia Percy Island. https://en.wikipedia.org/wiki/Lady_Julia_Percy_IslandWikipedia – Tower Hill (volcano) https://en.wikipedia.org/wiki/Tower_Hill_(volcano)

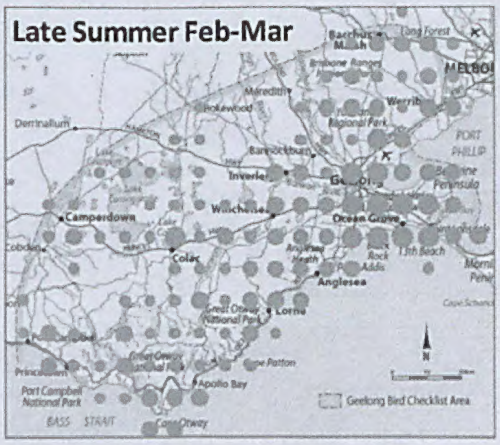
Worgundidj.org Tower Hill: About reserve http://www.worngundidj.org.au/?q=tower-hill/about-reserve

Looking toward the *Geelong Bird Report 2017–2020*

Craig Morley

As another exciting and fascinating year of bird observing in the Geelong region draws to a close it is worth remembering we have just over 12 months to add observations to the GFNC website, or to add complete lists to *eBird Australia,* to help 'inform' the *Geelong Bird Report 2017–2020.* In the *Geelong Bird Report 2013–2016* maps of seasonal survey coverage (pages 4–5) were published. The maps for December to March are reproduced here and all observers are encouraged to get out and 'go birding' to 'fill in the gaps' in areas on the map where bird observations were not made in 2013–2016. For more detail refer to Figure 1, page 3 for the map of the Geelong region with the grid of latitude and longitude. And if you have not received your pdf of the *Geelong Bird Report 2013–2016,* please send an email to info@gfnc.org.au requesting the download link!





GFNC Half Day Excursion

Moorabool upstream of Fyansford

Saturday 18 January 2020

Leader: Rod Lowther

Geelong is constantly changing with new developments scattered around the municipality. Some are along water ways and involve both riparian restoration aspects and stormwater retention ponds as part of the masterplan. January's half day excursion will cover a visit to one such development area.

We'll meet at the car park next to the Fyansford hotel prior to departing on our excursion. The walk will be along the Moorabool river starting from the old bluestone Fyansford Bridge, erected in 1899, and finish under the Lewis Brandt Bridge which was constructed and opened in 2008. The Lewis Brandt Bridge is named after the Ford engineer who is credited as the inventor of the Ute and is part of the Geelong Ring Road. Along the stretch of river between the two bridges, we will see some original native vegetation, areas that have recently be replanted and the efforts of the developer and the City of Greater Geelong to restore the health of the water way. We hope to see several bird species along the way including those that have taken up residency at the nearby and recently constructed wetland ponds.

Meet: 9.00 a.m. At the car park Fyansford Hotel

Bring: Morning tea which we plan to have at the new community picnic area plus binoculars, hat, sunscreen and insect repellent.

Note: In the event of a Total Fire Ban day being declared or a forecast of gale force winds, the excursion will be cancelled in line with GFNC Health and Safety policy.

Contact: Rod Lowther at rod.lowther@live,com or mobile 0419 633 960

Mid-week Bird Group Excursion

Balyang Sanctuary

Thursday 23 January 2020

Leaders: Craig Morley and Lynne Clarke

This sanctuary, in suburban Geelong, is a wonderful place to while away a relaxing January morning of birding. There may well be a good variety of species present and some breeding activity.

Meet: 9 a.m. Main car park, near picnic area at the end of Marnock Rd.

Google map https://www.google.com/maps/@-38.1666829,144.331829,16.75z
Craig and Lynne will be waiting here.
As this is a central venue *no* car-pooling arrangements have been made, though *please feel free* to make your own.

Bring: Binoculars, telescope (optional) sturdy footwear. Water, light snacks, tea, coffee etc. Sunscreen, insect repellent, hat, folding chair and the usual items you might need for a birding trip.

We plan to re-convene for lunch at a local café, depending on the weather, by either walking or driving – approx. 12 noon.

Please send an SMS to Craig on 042 919 6634 or email to craigmorley5@bigpond.com by Monday 20 Jan so that we can plan ahead.

Enquiries: Craig 5221 4604 (mobile 0429 196 634 for the morning of the excursion).

Upcoming Bird Surveys

Join in these upcoming surveys, see new birds in beautiful surrounds and know that your efforts are helping BirdLife Australia work towards a safer future for our birds.

Summer Wader Count: Saturday and/or Sunday 1–2 February

Contact: John Newman at microhouse3@gmail.com

Snipe Count: Saturday 18 January

Contact: Craig Morley at craigmorley5@bigpond.com or Birgita Hansen at b.hansen@federation.edu.au

Members are encouraged to arrive early at general meetings.

The room will be open at 7.15 p.m. to allow members to chat to other members and visitors.

Coming events

DECEMBER 2019

1 Challenge Bird Count: Bellarine
3 General Meeting: Members' Night and Christmas supper
5-8 Fauna Survey

JANUARY 2020

10 Friday Plant Group: Excursion to find *Spiranthes* orchid
11 Fauna Group annual meeting
16 Bird Group: Quiz
18 Saturday ½ Day Excursion: Moorabool River, upstream of Fyansford
18 Snipe count
20 Committee meeting
23 Bird Group Excursion: Balyang

FEBRUARY 2020

1-2 Summer wader count: John Newman
4 General Meeting: Chad Browning—The energy transition: Environmental implications and their management
6-9 Fauna survey
11 Plant Group: Workshop—Saltmarsh plants
16 Excursion: Avalon Beach & Limeburners Lagoon
17 Conservation subcommittee meeting
20 Bird Group: Prof Andy Bennett—Finding water in the desert: continent wide movement of Australian waterbirds
27 Bird Group Excursion: Western Lakes—Lake Corangamite and environs

GFNC COMMITTEE 2019–2020

President	Vacant	
Vice-President	Vacant	
Immediate past President	Rod Lowther	
Secretary	Graham Possingham Ph. 5243 6997	g.possingham@gmail.com
Treasurer	Graham Possingham Ph. 5243 6997	g.possingham@gmail.com
Minutes Secretary	Kristine Kristensen	kristinedawn@gmail.com
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	Craig Morley	craigmorley5@bigpond.com
	Tracey Hinton	tracey.hinton@gmail.com
	Trevor Hodson	doctiny@bigpond.com

SPECIAL INTEREST GROUP CONVENERS and OTHER CLUB POSITIONS

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Conservation Subcommittee Chair	Rod Lowther	
Publications and Communication Subcommittee Chair	Deborah Evans	deb.evans6@bigpond.com
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Fauna Group	Trevor Pescott	ppescott@gmail.com
Plant Group	Barry Lingham	lingham@tpg.com.au
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General excursions	Vacant	
Bird Group excursions	Lynne Clarke	alynneclarke@gmail.com

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GFNC meetings are held in the Geelong Botanic Gardens meeting room, and start at 8.00 p.m.
Entrance is at the intersection of Holt Rd and Eastern Park Circuit in Eastern Park. [*Melway* 452 G4]

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GEELONG FIELD NATURALISTS CLUB INC
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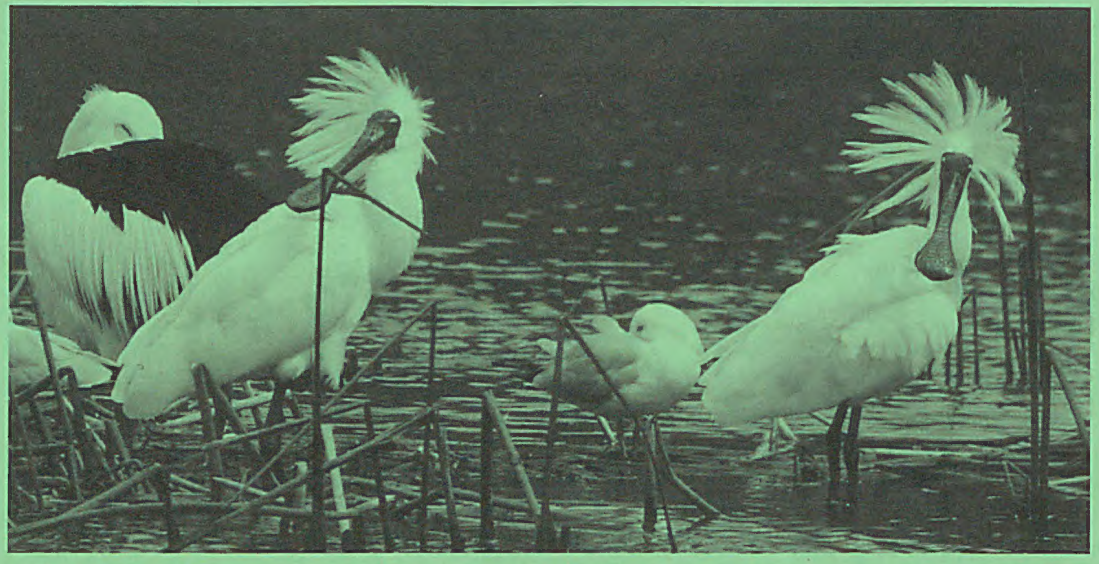

Printed by Gordon Printery, Geelong